

DOCUMENT RESUME

ED 273 591

SP 027 944

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TITLE Critique of Conventional Approaches to Vocational Teacher Education Evaluation.
PUB DATE 19 Apr 86
NOTE 13p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (120) -- Information Analyses (070)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Evaluation Methods; *Evaluation Needs; Higher Education; *Program Evaluation; Student Teachers; Teacher Education Curriculum; *Teacher Education Programs; *Vocational Education; *Vocational Education Teachers

ABSTRACT

This critique addresses conventional approaches to evaluation of vocational teacher education through a review of research that has components of evaluation, with specific emphasis on vocational teacher education programs. A review in the 1986 handbook by Lanier and Little, "Handbook of Research on Teaching," was used as the framework, citing teacher education generally and then vocational education specifically. The four topical areas were teacher education, students of teacher education, curriculum, and milieu. The review indicates that, if there is a single overriding criticism of evaluation of vocational teacher education, it is failure to develop and use a programmatic approach. Too many studies have looked at unimportant topics or trivial aspects of important topics. Little attention has been given to competency based teacher education or competencies needed by teachers. Had evaluators used different techniques in a coordinated effort, there might have been more of substance to report. A suggestion is made for regional or national evaluation projects, with experiment stations or national committees with cooperative projects, to conduct effective evaluation of vocational teacher education. (CB)

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ED273591

Critique of Conventional Approaches to
Vocational Teacher Education Evaluation

Paper presented at a symposium

Excellence in Vocational Teacher Education:
Evaluation Theory and Practice

American Educational Research Association
San Francisco
April 19, 1986

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Introduction

Shulman, in the foreword to Cuban's review of constancy and change in American classrooms from 1890 to 1980 (1984), notes that "carefully conducted historical inquiry may well provide us with the most powerful guides available" for improvement of educational practice (pp. vii-ix). Because Cuban's inquiry was over time and not tied to any single reform movement, it provides a perspective for viewing current evaluation research.

Cuban sought explanations for teaching practices that did not change over the years and explanations for instances in which reforms (changes) were accepted. On the basis of his study, he proposed five explanations.

He attributed constancy of teacher-centered instruction to three factors

- 1) the school serves as a social control and as a sorter of students
- 2) organizational structures of schools force teachers into teacher-centeredness
- 3) the culture of teaching itself is a culture of conservatism, rooted in the people who choose the profession

With respect to both continuity and change in practice, he found that

- 4) those who changed differed from those who preferred constancy in beliefs the teachers themselves held about children and the purposes of school
- 5) the success of a planned change depended on effectiveness with which the planned change was implemented (Cuban 1984, pp. 237-246).

Another perspective is provided by Ryans' classic study (1960) of characteristics of teachers. The study influenced teacher education for years, especially with respect to characteristics considered desirable for admission to teaching. Attention to both findings and methodology is instructive for at least two reasons. For one, Ryans and colleagues studied characteristics that probably would be proscribed today--attitude as related to performance of students, emotional stability, marital status as a factor affecting performance, and so on. Yet some of those data are useful, especially for identifying potential problem areas for students and beginning teachers. Because of actions by various state legislatures similar assessments may be reinstated.

The findings or procedures from Ryans' study (1960) of interest to this critique are these:

- (1) Characteristics of outstanding teachers included superior intellectual abilities, good emotional adjustments, and a demonstrated liking for children (p. 366).
- (2) Both process and product were assessed, although the researchers were careful to note associated problems (pp. 374-375).
- (3) Behavior is affected by the milieu in which it occurs. Included are not only the classroom--school--community milieu but also the curriculum of the teacher training institution (p. 377).
- (4) Secondary teachers appeared to be more subject matter oriented than elementary teachers who, as a group, were more child-centered (pp. 382-383).

Neither Ryans nor Cuban made any reference to vocational education; in fact, the only secondary teachers identified in the Ryans study are academic. Cuban does not differentiate at all except for occasionally describing elementary classrooms. Yet their work will be useful in looking at evaluations of vocational teacher education. Additional context is provided by Lanier and Little in the latest handbook of research on teaching (Wittrock, 1986).

Research on Teacher Education

Lanier and Little (1986) provide "a more comprehensive review of research on teacher education" than was provided in the two previous handbooks (Gage, 1963; Travers, 1973) (p. 527). Because they take a broad view and because they assume it to be multidisciplinary, their approach can accommodate any field of teacher education. The four areas of inquiry, credited to earlier work of Schwab (cited in Lanier and Little, 1986), are teacher educators themselves; students of teaching (the prospective teachers); the curricula offered to teachers; and the milieu in which and for which teacher education programs are directed.

The four areas represent the concerns and findings cited from Ryans and Cuban. Concern over milieu was emphasized in Cuban; characteristics of students and teachers were emphasized in Ryans. All four areas have been addressed in the evaluative studies of vocational teacher education, but curriculum received more attention. In the sections of the paper to follow, each area is presented, beginning with a summary of findings of Lanier and Little (1986). Relevant studies from the vocational education literature are then presented.

Teacher Educators

Data on teacher educators are extremely limited. We have a plethora of studies on classroom teachers and on their students, but rarely have we studied ourselves. The authors discuss the problem of identifying teacher educators, since university faculty in general education (the liberal arts faculty, if you will) have an important role in the education of teachers. However, Lanier and Little (1986) make no reference to faculty in colleges that may provide the substantive areas for vocational teachers--agriculture, business, home economics, industrial technology. It is as though only the "academic" subjects were of any import! General questions of definition and reports of internal debates are germane, but this paper addresses only faculty who are directly associated with teacher education, often in colleges of education.

Lanier and Little (1986), in the few studies available, identify teacher education faculty as often publicly criticized, less academic than other faculty in their orientation, less productive in research, and overly concerned with off-campus activities. They attribute these conditions in part to the low status of education and in part to faculty backgrounds. For example, they found that a disproportionate number came from homes where parents were unskilled or skilled laborers. They also cite the large numbers of women, particularly in earlier normal schools, as being a factor. However, the connection between feminization of the profession and its effect on academic acceptability is only implied.

The most disconcerting comments by Lanier and Little (1986) are those that assume that teacher educators are conformist, utilitarian, and lacking in intellectual flexibility and breadth. The causes of these characteristics are identified as childhood experiences in lower class homes, educational opportunities (or lack thereof) on account of membership in a lower class, and the "restrictive conditions of work as teachers before coming to higher education" (p. 535).

Others have similar concerns. For example, Warren (1985) notes the susceptibility of teacher education programs to academic politics and market considerations with respect to shortages or surpluses of teachers. He does not challenge the competence of teacher educators directly but reference to inadequacy of programs suggests that direction.

Specifications for what teacher educators should be are reflections of state requirements for certification or of requirements for status as a university faculty member. Teacher educators in vocational education appear to meet state requirements more often than do teacher educators in the academic areas. But still, requirements for classroom teachers are more closely defined than are requirements for teacher educators.

Vocational Teacher Educators

Review of research and synthesis publications in several vocational areas provided few insights into teacher educators. In the 1981 review of business and office education no reference at all was made to teacher educators (Lambrecht, D'Onofrio, Jones and Mercier). Although references to vocational teachers were frequent, Finch (1983) made no mention of teacher educators in trade and industrial education. In his review of agricultural education, Lee (1985) included a brief section on teacher education programs, but his only reference to teacher educators was with respect to their high level of job satisfaction (p. 12).

In order to "assess the extent to which the research reported was addressing the identified concerns of the profession" Mannebach (1980, p. 19) reviewed the impact of research in agricultural education. His review cited areas of concern, but teacher education was not included as such. As with other reviews, the concern is implicit in such topics as curriculum development, but nowhere is there reference to teacher educators as subjects in research or evaluation.

Home economics has not done much better, although they identified competencies needed beyond the baccalaureate degree and, by implication, for teacher educators. Seeking to identify directions of home economics education programs in the U.S., selected characteristics of teacher education faculty were studied (Hall, Wallace, & Lee, 1983). The emphasis was on needs for professional development, although in discussing needed changes, the authors described teacher educators as "moderately futuristically oriented and not necessarily change oriented" (p. 21).

Accreditation reviews may well be the only consistent (and persistent!) studies of teacher educators, and those are more form than substance, with the form directed toward the agenda of the reviewing agency. State departments of education, the National Council for Accreditation of Teacher Education (NCATE), reviews by regional accrediting agencies, reviews of research like those associated with Experiment Stations, and various

reviews by subject matter field: all such groups review teacher educators. They measure our publication lists; the source and number of our academic degrees; age, race and sex (at least recently); and educational experiences. They may confer with a few students about their programs but they do not document systematically teacher educators' success as teachers, establishment of those critical relations with the public school system, or the usefulness of services provided to their respective vocational fields. Certainly accrediting agencies do not test political acumen or success in the policy arena. They will ask if students are followed-up, but rarely do they ask what differences it has made in the performance of teacher educators.

In short, vocational teacher educators have been measured but not evaluated. The field may know what makes a good teacher educator, but documentation is elusive.

Students of Teaching

In their review of research on students of teaching, Lanier and Little (1986) note that the research is extensive at both the preservice and inservice level. They make reference to current conditions and their effects on these students, but recent as their review is, conditions are changing so rapidly that some comments are already outdated, particularly with respect to state mandates.

A substantial portion of the review is directed toward the academic ability of today's teachers. While acknowledging the precipitous drop in numbers entering and staying in teaching they also comment on the increasing numbers of teachers or prospective teachers of low academic ability, at least low with respect to those in other fields. However, the authors caution that such sweeping statements may be misleading. All occupations seek the most able, and until we look at the total population it is not reasonable to say we have the least able only in teaching. Another consideration is that the number needed for an occupation at any one time will affect the selection process (Lanier and Little, 1986, pp. 536-537).

Less attention is given to personality and personal qualities--the sort of information found in Ryans (1960) and in the first handbook (Gage, 1963). The second handbook (Travers, 1973) had many studies of classroom performance using a variety of observation devices. Neither is reflected to any degree in the 1986 handbook. Lanier and Little (1986) report studies of teachers' expectations and subsequent satisfaction with their work, but they consider the assessments so global that causes cannot be discerned. For example, teachers may report disappointment, but it is difficult to relate the disappointment to specific aspects of the preparation program. Nonetheless, students in today's teacher education programs present challenges.

Students of Vocational Teaching

To the extent that data are similar, vocational teachers do not appear to differ substantially from the teachers described by Lanier and Little (1986). There is no shortage of studies of job satisfaction, problems as beginning teachers, perceived adequacy of preparation, and occupational competence. But vocational teacher education programs differ from academic in attention to knowledge and skill in the occupations for which their students are to be prepared.

Use of tests of competence is greatest in Trade and Industry (T & I) teacher education, and was discussed in the second handbook in the chapter by Schaefer and Law (1973). In describing T & I teachers as people with technical competence who were thrust suddenly into the world of education, the authors noted problems because so often the teachers did not have academic credentials. Finch (1983) referred to these problems in his review also, and reported increased attention to upgrading of their pedagogical skills. His recommendation for a better system of professional development suggests that even though much had been done on test development and use, not much had been done to construct a legitimate theoretical base for the preparation of vocational teachers as called for ten years earlier by Schaefer and Law (1973).

In the review of business and office education (Lambrecht, et al., 1981), no chapter was devoted to teacher education; in fact, little was said about teachers. The authors cited studies that described business teachers as "moderately conservative" and supportive of society's norms (p. 19). Aspects of equity were more prominent than in other reviews, and although most of the studies were of graduates of secondary and post-secondary programs, there was evidence that feminization of the occupations may have been responsible for lower pay and lower status (pp. 20-21).

Lee (1985) has a chapter on personnel preparation in agricultural education, but there is little on practicing teachers. Recruitment and retention of teachers was cited as an area in need of improvement. In studies of retention, Lee cited aspects of job satisfaction: enjoyment of teaching, liking the subject matter, and satisfaction in serving others. Lack of satisfaction was associated with salary, lack of respect, discipline, and heavy loads. There were no studies that dealt with academic ability, personality, or such factors for teachers, but such characteristics of students were studied, as were issues of equity.

Recent studies of home economics teachers at either the preservice or the inservice level rarely include personality, academic ability, or background. Likely because the group is largely female, home economics teachers were often subjects in studies of sex roles or attitudes toward sex roles. In one study, however, attitudes of home economics teachers were studied because of the importance of these roles and the need to address them in the many courses that affect family members (Morgan, Stewart, and Martin, 1981). The study was one of the few that included personality characteristics and selected demographic variables.

Learning styles of students were studied frequently, but seldom learning styles of teachers. One of the latter was a study of vocational teachers in a field-based certification program (Walker, Merryman, and Staszkievicz, 1984). The purpose was to find ways to adapt the program to learning styles of individual teachers. Even though results were not considered definitive or generalizable, the study identified variables that may be related to successful teaching (pp. 38-39).

In reviews by subject area, in perusal of our own journal, and in journals of specific subject areas, teachers were studied. Some used traditional personality assessments, many used some form of self report of perception or procedure, but very few used any form of depth interview, extended and detailed observation, or systematic multi-variate approaches. They seemed to be, rather, a collection of disparate studies with no central conceptual framework. Although some of our prominent researchers called for this kind of organization, only isolated instances were found. Further, only a few ventured to tie teacher behavior to student performance.

Curriculum for Teaching

The discussion of curriculum for teaching is general, focused on the future, and oriented to a more liberal approach than is found in much of vocational education. Nonetheless, Lanier and Little (1986) direct attention to concerns, issues, and directions for all of teacher education to consider. Unfortunately for this discussion, there is neither explanation nor critique of the methodologies of the studies included. In fairness, however, one should note that the studies included and the comments on them are complementary to the recent calls for reform in teacher education.

Of interest to us are concerns about a curriculum that is too technical versus one that is more liberal, directed toward encouraging teachers to analyze and examine what happens in their classrooms. Lanier and Little say that our present curricula are oriented toward the more mechanistic, task-oriented behaviors that are of immediate use to teachers. Given our expressed interest in developing higher-order thinking skills in our students, their admonition deserves attention.

Much of the section on curriculum is not pertinent to this paper, but another that is is the suggestion that we will have more, not fewer, career teachers in the years to come. Education for a brief career from which one is expected to flee is different from building for a career of many years, for which inservice (continuing education) might be a planned, sequential effort. Such effort would be in sharp contrast to most of our present updating to "state of the art."

Lanier and Little's discussion of field experiences, especially student teaching, is not particularly instructive. We are in need of data to document length and types of experiences that would be most helpful in development of teachers, but little information is available. Their review suggests that we attend more carefully to what the experiences are and how prospective teachers are helped to learn from them (p. 551).

Curriculum for Vocational Teachers

Whereas Lanier and Little (1986) say that they found nothing much on content of the substantive area for which one was preparing, the opposite is true for vocational teachers. This critic found one or more lists of tasks--or competencies--or skills--or whatever--needed by teachers in every one of our traditional program areas. For example, for agriculture, Cole and Kahler (1978) studied the perceived importance of competencies for teachers generally; Sunderhaus and Miller (1985) studied difficulty teachers had in accomplishing such tasks. Professional education competencies were also studied. Cheek and Beeman (1978) identified the competencies that should be included in teacher education programs in agriculture. Distributive education (now Marketing) appeared to have more studies related to tasks as a basis for curriculum than did the other areas; illustrative would be identification of performance tasks of distributive education teacher-coordinators (Williams, 1979).

Relatively little research was found on health occupations, but Richards (1980) documented the need for separate professional courses for health occupations (p. 30). Much of the research of the last ten years in T & I dealt with competencies needed for the many curricula offered in the field, even though there were a variety of

approaches. These are reviewed by Finch (1983) who, while acknowledging the value of studying what is current, calls attention to the need for a more futuristic approach (p. 12).

Most of the review of business and office education (Lambrecht, et al., 1981) is devoted to curriculum. Even though they emphasize the curriculum that teachers will teach, implications for teacher education are evident. The authors include both the content area, for example bookkeeping and accounting, and related instructional materials and methods. Interestingly, although most of the report deals exclusively with business and office education, their final section on future research needs includes areas important to all vocational educators: serving adequately students with a variety of handicaps, issues of equity, retraining and upgrading of skills, and so on.

Home economics educators have given equal attention to their curricula, not only through research but through consideration of trends and issues to be reflected in curriculum. Leaders in the field have taken initiative to identify both subject matter and professional competencies needed (American Home Economics Association, 1974; Teacher Educators, 1978).

Reports of competency lists and other aspects of Performance Based Teacher Education have been deliberately cursory. They serve as a basis for determining the content of curricula but the field is not well served by developing a list of tasks, sending the lists around to colleagues, counting and ranking, and then calling the work evaluation or research.

More useful are studies that follow student teachers to their first job and compare their performances on behaviors that made a difference on what students learned in their classrooms. Those studies could be developed to incorporate techniques tested over time, and to use appropriate statistical treatments. Such a study, reported in 1979 by Fanslow, Caputo, and Hughes, established a protocol that even now is exemplary. But the resources required are tremendous and the results have no glamour. Few want to do the studies and fewer still are willing to commit the necessary resources.

Much more promising is the study of field experiences in teacher education by Clark (1985), just released. His extensive case studies of five exemplary teacher education programs in industrial arts/technology is probably generalizable to other vocational areas; if not, it is a model to be replicated. On the basis of his evaluation, he makes recommendations for program content and process, including not only the traditional preservice program but programs for new and returning teachers.

Yet that is only a beginning. Our curricula seem to be lacking experiences with "the real world"--with the public's perception of teacher education--with understanding how the system works. In a conference paper addressing needs of beginning teachers, Boyer (1984) came close. He noted the need for teachers to understand and cope with the bureaucracy of the education establishment. The next section, on the educational milieu, expands on this idea.

The Milieu of Teacher Education

Aspects of the milieu in which teacher education occurs included in Lanier and Little's review (1986) are the higher education community itself, the community in

which the local school system functions, and the professional education community. They describe what research has been done and note the pressing need for more.

Teacher education is not a high status field in our colleges and universities. One may not agree with Lanier and Little that the reasons lie in the backgrounds of education faculty, but few would argue with the fact. Those who are most closely associated with student teachers have the least prestige of all, commanding only the most meager of resources. And in the K-12 schools, little attention has been given to development of career ladders, or some such system for helping those new to the profession and rewarding those who have successful careers. Teachers have little opportunity for planning and developing professionally. Continuing education focuses on specific problems or topics that someone in staff development thought would be useful. The authors note the lack of commitment to the long term, in part because there is a general belief that years of experience equal increased competence (Lanier and Little, 1986, p. 563).

Not much is said about unions in so many words, but the authors include the National Education Association and the American Federation of Teachers among the organizations that influence teacher education. They are an important part of the milieu but there is little formal study of their direct effects. Similarly, problems of certification and program approval are noted, especially with respect to the politics associated with both national and state agencies (Lanier and Little, 1986, pp. 563).

Milieu of Vocational Teacher Education

The general problems for vocational teacher education do not differ substantially from those of all teacher education: status as a faculty member at a university, status as a public school teacher, and the politics of accreditation. The milieu for vocational teacher education, however, has more dimensions than those included in the review cited above.

We are encouraged about these other dimensions, but little evaluation of their effects has been reported. Professional development is one of these dimensions. Study of it is more extensive in T & I, perhaps because of close associations with industry in identifying possible teachers and the subsequent needs for training those teachers, of whom many do not have degrees. Finch (1983) describes these problems, and calls for a more "comprehensive view of professional development systems for T & I teachers" compared to the present "one shot approach" (p. 27).

The review of business and office education (Lambrecht, et al., 1981) includes an entire section on "Social and Business Environment," but it is devoted more to perceptions of skills and personal characteristics suited to the environments than to the politics of the environments. Similarly, the review of agricultural education (Lee, 1985) had a section on "Relationships with Publics." This one, too, had greater emphasis on perceptions of selected groups and their effect on curriculum. However, Lee noted that there were few if any studies in this area, and called for increased research. A series of papers on the changing workplace (Bjorkquist, 1985) comes closer to noting the politics of the workplace. His paper and others in the series, however, relate more to impact on curriculum and preparation for changing job structures than to dealing with associated policy.

Given the importance to vocational education of relationships with community agencies and the political establishment, this failure to study and understand the

environments in which and with which we work is a serious fault. It is not that no one noticed. Over the years some of us have warned our colleagues that we must become politically active. Hughes (for example, 1982) has exhorted the field of vocational home economics for years. Policy studies commissioned by the National Center for Research in Vocational Education have given direction for possible action (for example, Phelps, 1984; Copa, 1984). The Center has also addressed policy directly through publications such as The Unfinished Agenda, the report of a commission whose work was oriented heavily to policy (The National Commission on Secondary Vocational Education, 1984).

Summary

This critique was to address conventional approaches to evaluation of vocational teacher education. In order to have any substance, research that had components of evaluation was reviewed. The review in the 1986 handbook by Lanier and Little was used as the framework, citing teacher education generally then vocational teacher education specifically. The four topical areas were teacher educators, students of teacher education, curriculum, and milieu. Comments and recommendations, limited to vocational teacher education, may or may not be consistent with the general comments in the handbook.

If there is a single, overriding criticism of evaluation of vocational teacher education, it is failure to develop and use a programmatic approach. One useful model is the regional project as carried out in experiment stations. Another is the model used in selected vocational program areas: national committees within which cooperative projects are planned. Still needed is a group that spans program areas; is that a task for this group? Questions for such a group might include:

- (1) What procedures in teacher preparation provide teaching skills that last over time?
- (2) Which attributes of teachers make a difference? Are we really as described: conservative, inflexible, conformist, low-status? If so, does it matter?
- (3) How do policies affecting vocational education differ across states? What differences occur as a result?

Too many studies looked at unimportant topics, or trivial aspects of important topics. Little attention was given to PBTE (CBTE) or competencies needed by teachers. For the most part, studies were in the trivial category, and not cited. One asks: where were the studies that would help teachers understand the milieu in which teaching occurs? Or help teachers deal with the bureaucrats and politicians who are increasingly dominating curricula?

Is there not a broad approach to components of our teacher education program, on the dimension of Clark's work on field experience (1985)? His study includes a wealth of ideas for evaluation of other facets of our programs. Why not look at several program areas at once? Might methodology be improved by combining efforts with colleagues in psychology and sociology?

As recent work was reviewed, it appeared that programs were evaluated, but had the evaluators used different techniques in a coordinated effort, there might have been more of substance to report.

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